

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-3. (Canceled)

4. (Previously Presented) A semiconductor device comprising:

a first and a second semiconductor chip which are electrically connected to each other;

a first die pad to which said first semiconductor chip is fixed;

a second die pad to which said second semiconductor chip is fixed;

at least one bridge electrically connecting said first and said second semiconductor chip;

external connecting electrodes provided to surround areas where said first and said second semiconductor chip are located, at least a portion of the rear surface of them serving as an electrode to be externally connected;

first metallic wires which electrically connect said first and said second semiconductor chip to said external connecting electrodes, respectively;

second metallic wires which electrically connect said first semiconductor chip, said at least one bridge and said second semiconductor chip; and

insulating resin which seals said first and said second semiconductor chip, said external connecting electrode, and said first and said second metallic wires,

wherein said insulating resin separates said first and second die pad, said at least one bridge and said external connecting electrodes from one another, and said second metallic wires are coupled to said first and said second semiconductor chip using a ball bond and coupled to said at least one bridge using a stitch bond,

further comprising a plurality of recesses in a rear surface of said insulating resin, the rear surface of said first and second die pad and said external connecting electrodes being exposed within said recesses, wherein the at least one bridge is exposed within at least one of the recesses;

wherein a rear surface of the at least one bridge is recessed relative to the rear surface of the insulating resin; [[and]]

wherein the rear surface of the at least one bridge is covered by an insulating film; and wherein an entire rear surface of the semiconductor device is covered by an insulating film except for a part of the rear surface that is an external connecting electrode.

5-9. (Canceled)

10. (Withdrawn) A semiconductor device comprising:

a first and a second semiconductor chip which are superposed on each other;  
a first die pad to which said first semiconductor chip at a lower layer is fixed;  
at least one bridge arranged between said first and said second semiconductor chip and electrically connecting them;

external connecting electrodes provided to surround areas where said first and said second semiconductor chip are located, at least a portion of the rear surface of them serving as an electrode to be externally connected;

first metallic wires which electrically connect said first and said second semiconductor chip to said external connecting electrodes, respectively;

second metallic wires which electrically connect said first semiconductor chip, said bridge and said second semiconductor chip; and

insulating resin which seals said first and said second semiconductor chip, said external connecting electrode, and said first and said second metallic wires,

wherein said insulating resin exposes the rear surface of each of said bridge and said external connecting electrodes, and said second metallic wires are coupled to said first and said second semiconductor chip using a ball bond and coupled to said bridge using a stitch bond,

further comprising a plurality of recesses in a rear surface of said insulating resin, the rear surface of said first and second die pad and said external connecting electrodes being exposed within said recesses.

11-12 (Canceled)

13. (Withdrawn) A method of manufacturing a semiconductor device comprising the steps of:

preparing a sheet-like plate having a prescribed thickness, said plate having a flat rear surface over an entire region corresponding to a resin sealing area and a front surface in which external connecting electrodes and a bridge are formed as convex shapes in a region encircled by a region in contact with an upper mold;

mounting a semiconductor chip on an area where it is to be mounted and electrically connecting said semiconductor chip to said external electrodes and said bridge, respectively; mounting said plate in a mold and filling a space formed by said plate and said upper mold with insulating resin; and

removing the plate exposed to the rear surface of the insulating resin, thereby separating said convex portions.

14. (Withdrawn) A method of manufacturing a semiconductor device according to claim 13, wherein after said insulating resin has been filled, an insulating film is formed on the rear surface of said insulating resin so that said externally connecting electrodes are partially exposed.

15. (Withdrawn) A method of manufacturing a semiconductor device according to claim 13, wherein an entire region of the rear surface of the plate corresponding to said resin sealing area is filled is kept in contact with a lower mold.

16. (Withdrawn) A method of manufacturing a semiconductor device according to claim 13, wherein vacuum sucking means is dispersedly arranged on the area with which said lower mold is kept in contact.

17. (Withdrawn) A method of manufacturing a semiconductor device comprising the steps of:

preparing a sheet-like plate having a prescribed thickness, said plate having a flat rear surface over an entire region corresponding to a resin sealing area and a front surface in which external connecting electrodes, die pad and a bridge are formed as convex shapes in a region encircled by a region in contact with an upper mold;

fixedly stacking semiconductor chips on said die pads and electrically connecting said semiconductor chips to said external electrodes and said bridge, respectively;  
mounting said plate in a mold and filling a space formed by said plate and said upper mold with insulating resin; and

removing the plate exposed to the rear surface of the insulating resin, thereby separating said convex portions.

18. (Withdrawn) A method of manufacturing a semiconductor device according to claim 13, wherein after said insulating resin has been filled, an insulating film is formed on the rear surface of said insulating resin. so that said externally connecting electrodes and/or said die pads are partially exposed.

19. (Withdrawn) A method of manufacturing a semiconductor device according to claim 18, wherein parts of said external connecting electrodes and said die pads which are exposed from said insulating film are substantially flush with each other, and parts of said external connecting electrodes and die pads are provided with a brazing material or conductive paste.

20. (Withdrawn) A method of manufacturing a semiconductor device according to claim 17, wherein an entire region of the rear surface of the plate corresponding to said resin sealing area where said insulating resin is filled is kept in contact with a lower mold.

21. (Withdrawn) A method of manufacturing a semiconductor device according to claim 17, wherein vacuum sucking means is dispersedly arranged on the area with which said lower mold is kept in contact.

22. (Withdrawn) The semiconductor device according to claim 4, wherein said recess is formed by an insulating film coated on the rear surface of said insulting resin, said first and said second die pad and said bridge.

23. (Previously Presented) The semiconductor device according to claim 4, wherein said recesses are formed by a portion of the rear surface of said insulating resin of which a back surface protrudes from the rear surface of said first and said second die pad and said external connecting electrodes.

24. (Withdrawn) The semiconductor device according to claim 10, wherein said recesses are formed by an insulating film coated on the rear surface of said insulating resin, said first die pad and said bridge.

25. (Withdrawn) The semiconductor device according to claim 10, wherein said recesses are formed by a portion of the rear surface of said insulating resin of which a back surface protrudes from the rear surface of said first and second die pad and said external connecting electrodes.

26. (Withdrawn) A semiconductor device comprising:  
a first and a second semiconductor chip which are electrically connected to each other;  
a first die pad to which said first semiconductor chip is fixed;  
a second die pad to which said second semiconductor chip is fixed;  
at least one bridge arranged between said first and said second semiconductor chip and electrically connecting them;

external connecting electrodes provided to surround areas where said first and said second semiconductor chip are located, at least a portion of the rear surface of them serving as an electrode to be externally connected;

first metallic wires which electrically connect said first and said second semiconductor chip to said external connecting electrodes, respectively

second metallic wires which electrically connect said first semiconductor chip, said bridge and said second semiconductor chip; and

insulating resin which seals said first and said second semiconductor chip, said external connecting electrode, and said first and said second metallic wires,

wherein said insulating resin separates said first and second die pad, said bridge and said external connecting electrodes from one another, and said second metallic wires are coupled to said first and said second semiconductor chip using a ball bond and coupled to said bridge using a stitch bond,

further comprising a plurality of recesses in a rear surface of said insulating resin, the rear surface of said first and second die pad and said external connecting electrodes being exposed within said recesses, wherein said recesses are formed by coating an insulating film on another part of the rear surface of said insulating resin, said first and said second die pad and said bridge, each area of said recesses being substantially the same size.

27. (Withdrawn) A semiconductor device comprising:

a first and a second semiconductor chip which are superposed on each other;

a first die pad to which said first semiconductor chip at a lower layer is fixed;

at least one bridge arranged between said first and said second semiconductor chip and electrically connecting them;

external connecting electrodes provided to surround areas where said first and said second semiconductor chip are located, at least a portion of the rear surface of them serving as an electrode to be externally connected;

first metallic wires which electrically connect said first and said second semiconductor chip to said external connecting electrodes, respectively

second metallic wires which electrically connect said first semiconductor chip, said bridge and said second semiconductor chip; and

insulating resin which seals said first and said second semiconductor chip, said external connecting electrode, and said first and said second metallic wires,

wherein said insulating resin exposes the rear surface of said bridge and said external connecting electrodes from one another, and said second metallic wires are coupled to said first using a ball bond and said second semiconductor chip and coupled to said bridge using a stitch bond,

further comprising a plurality of recesses in a rear surface of said insulating resin, the rear surface of said first and second die pad and said external connecting electrodes being exposed within said recesses, wherein the recesses are formed by coating an insulating film on another part of the rear surface of said insulating resin, said first die pad, each area of said recesses having substantially the same size.

28. (Previously Presented) The semiconductor device of claim 4 wherein the at least one bridge is arranged between said first and second semiconductor chips.